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Refereed Article

E.J. Briscoe:

The Acquisition of Grammar in an Evolving Population of Language Agents

Author's affiliation: University of Cambridge, U.K.

Abstract: *Human language acquisition, and in particular the acquisition of grammar, is a partially-canalized, strongly-biased but robust and efficient procedure. This paper develops an account of the evolution of a language acquisition device (LAD) in terms of the integration of general purpose (Bayesian) learning mechanisms with a specifically-linguistic mental representation of universal grammar. A formal model of the LAD is described along with an implementation. This forms the basis of experiments on grammatical acquisition and on coevolution of the LAD with language in a computational simulation of a population of evolving language agents.*

Publication and review history

1. This work is originally presented at the Machine Intelligence 16 Workshop, 1-3 December, 1998, and the draft paper is presented to the participants.
2. The present article is *advertised* to the MI peer community on November 19, 1999.
3. The present article is *published* by Linköping University Electronic Press on December 30, 1999, and is permanently available at
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4. The article is refereed during January - May, 2000 by the Organizing Committee of the Machine Intelligence workshops, and is accepted for inclusion in the ETAI.
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6. Paper editions of the ETAI issue and the ETAI volume containing this artice are *republished* by the Royal Swedish Academy of Sciences.

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